BROWN BAG LUNCH
ELECTRICAL INSPECTION ITEMS

1. TEMPORATY POLES.

Question:

Due to the location of the pedestal is it important to always have the temporary pole specific to the pole it serves? Can it be within 10-15 feet of the pedestal of the lot line? When this occurs in an off-lot position, is it acceptable to put the address on the pole?

Conclusion:

The best solution is to place the temporary pole on the project property. In an instance where it does not seem possible the City does offer an on-site consultation inspection. It is often found very beneficial by contractors as an aid to sort out difficult situations or to simply discuss an alternative compliance method. Please feel free to contact a City Inspector to meet on-site, review the field conditions and determine the best solution to provide temporary power on your construction site. In most instances, reduced cover depth of temporary underground electric cables and/or conduits is allowed.

2. TEMPORARY POLES-BROKEN POLES AFTER THE INSPECTION.

Question:

What if there are issues with broken temporary poles after the inspection?

Conclusion:

Electrical safety is of concern to us all. If you observe a broken pole or other equipment after the inspection is completed please feel free to take steps to repair/replace the broken pole or other electrical equipment.

3. TEMPORARY POLES-PROBLEMS WITH POLES THAT GET TORN UP OR MODIFIED BY OTHER TRADES.

Question:

We are having problems with the issue of temporary poles that are being torn up or modified by other trades.

Conclusion:

If facts are known when flagrant violations of electrical safety standards occur, please report them to the Chief Building Official for follow up.

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4. ROUGH-IN/FINAL ISSUES.

Question:

We need clarification of hallway/unusable space on entry into room. We request that usable wall space starts at the point beyond the walkway entry way which would be considered the entry point into the room. See attached – Exhibit A.

Conclusion:

Considering the requirements of IRC Section E3901.2 and its related subparts, passageways not exceeding four (4) feet in width and less than ten (10) feet in length (measured in the direction of travel upon entering the room or space) may be omitted from the requirements of this section. Additionally, wall spaces that are rendered inaccessible or unusable by a door that is typically left open and/or when opened to a 90 degree angle the door blocks the wall space may be omitted from the requirements of this section.

5. ROUGH-IN FINAL ISSUES-CONDUCTOR LENGTH

Question:

Is 6-inches adequate for proper free conductor length?

Conclusion:

Yes. 6-inches is the adequate length for free conductor.

6. ROUGH-IN FINAL ISSUES - NAIL PLATES.

Question:

The City says ½ inch drill bit must be used and have to have 1-1/4 inches on each side. If the hole is too large or too close to the outside edge, the city may or may not turn you down. Request: How can we eliminate the need for exterior nail plates? We ask for common sense on the variance to the outside. Could the width of the Oriented Strand Board (OSB) or sheathing be included in the outside dimension? One inspector will approve and one will turn down. Can we have any tolerance on this issue?

Conclusion:

Supplementary protection is required on the edge of the framing member in those instances where the circumference of the bored hole is closer than 1 and 1/4 inches to the edge. The need for nail plates can be eliminated by properly placing the bored hole in the face of the framing member. Please refer also to IRC sections R502.8, R602.6, and R802.7.1 for structure protection requirements when notching or boring occurs.

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7. ROUGH-IN FINAL ISSUES - 50 LB. RATED BOX REQUIREMENT.

Question:

We need clarification on where the 50 pound box requirement applies, specifically on exterior.

Conclusion:

Considering the requirements of E3905.6 boxes used to secure luminaires or lamp holder outlets on the underside of the soffit, eaves, or other similar exterior surfaces may be excluded from the 50 pound support requirement as long as the box is listed to support the actual weight of the fixture installed. Additionally, boxes used to support small specialty fixtures in kitchens, bathrooms, closets, hallways, garages and similar locations may be exempted from the 50 pound support requirement as long as the box is listed to support the actual weight of the fixture installed.

8. ROUGH-IN FINAL ISSUES - WIRING RUN PROTECTION AT PERIMETER OF BUILDING.

Question:

We need clarification on wiring run protection at perimeter of building. Being required to put 2x4 runners along wire run when there is only 18 inch-24 inch clearance between the rafters and joist? What does code actually call for? No one can walk in those areas. Need to determine a reasonable rafter to joist clearance where wire protection won't be required.

Conclusion**:**

Attic spaces with a vertical clearance of 30 inches or less measured from the top of the joist below to the bottom of the roof rafter or joist above are considered as exempt from the requirements of IRC section E3802.2.1.

9. ROUGH-IN FINAL ISSUES - GROUNDING CODE.

Question:

What is the code on foundation rebar grounding and what is acceptable? Grounding code requires two separate sources of grounding, why are two rods not sufficient to meet the code requirements?

Conclusion:

The code requirements pertaining to this matter are described at IRC section 3608. Particular attention should be given to sections E3608.1 Grounding electrode system, E3608.1.1 Metal underground water pipe, E3608.1.2 Concrete encased electrode and E3608.1.4 Rod and pipe electrodes. Additionally, the

requirements of (2011 edition) NEC article 250.53(A) (2) should be considered in this discussion. The code is very specific in describing the grounding electrode system.

10. ROUGH-IN FINAL ISSUES - SMOKE DETECTORS.

Question:
Can we get explanation on 25-foot rule? Installation instructions say if hallway exceeds 30 feet you need 2 smoke detectors. Can we install in the middle of the hall if distance from each bedroom door is 25 feet or less?

Conclusion**:**

Adhere strictly to the smoke detector (and/or carbon monoxide) installation instructions; when in doubt review the specific field conditions with a Building Inspector during an on-site consultation. The dust covers may remain in place until such time as the structure is occupied.

11. ROUGH-IN FINAL ISSUES - KITCHEN EXHAUST HOOD

Question:

Provide means of disconnect for kitchen exhaust hood motors? What does city want to see?

Conclusion:

Adhere to IRC table E4101.5

12. ROUGH-IN FINAL ISSUES - ELECTRIC SEPTIC TANK

Question:

How far can septic tank contractor run wire to house? Explain where electrical contractor should take over. At disconnect?

Conclusion:

The electrical safety of all parts of a premises wiring system including any on-site sewage disposal system components, are under the purview of the City's inspection authority. An ODEQ Certified Installer is generally authorized to install electrical wiring and materials from the supply of electricity to the sewage disposal system components. The electrical contractor should oversee this work to ensure it complies with all applicable IRC and/or NEC requirements. Any deficiencies in this work discovered by the City Inspector will be noted during the appropriate electrical inspection.

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13. ROUGH-IN FINAL ISSUES - ISLAND BAR WALL PLUGS

Question:

If we have receptacle at each end within 12 feet is that OK?

Conclusion:

In accordance with IRC section E3901.4.2 at least one receptacle outlet must be installed at each island countertop space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater. Similarly, in accordance with IRC section E3901.2.2, the space created by fixed room dividers such as railings and freestanding bar type counters must be provided with a general purpose receptacle. If the receptacle outlet placement on the island is consistent with IRC section E3901.4.5 exception, then yes, the receptacle spacing is ok.

14. ROUGH-IN FINAL ISSUES - PENINSULA.

Question:

What is the rough-in measurement? What is the maximum distance between plugs?

Conclusion:

Please refer to IRC section E3901.4.3 and figure E3901.4; at least one receptacle outlet must be installed at each peninsular countertop space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater.

15. ROUGH-IN FINAL ISSUES - RE-INSPECT FEES.

Question**:**

Unrelated trade inspection deficiency on final inspections. Why does the fail and cost of re-inspection go against the trade that didn't cause the problem?

Conclusion:

City staff feels the only prudent way to respond to this item is to ask the affected contractor to contact the Chief Building Official in order to review the inspection record and determine what, if any, specific actions may be taken to resolve this matter. In more broad terms, IRC section E3906.6 Plaster, gypsum board and plasterboard, requires that openings in plaster, gypsum board or plasterboard surfaces be made so that there are no gaps or open spaces more than 1/8 inch around the edge of the electrical outlet box.

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16. ROUGH-IN FINAL ISSUES - PANEL LABELING.

Question:

What happens when you have lights for 4 rooms on a circuit or receptacles for 4 rooms on a circuit?

Conclusion:

The requirements for panel board labeling are prescribed by IRC section E3706.2 Panel board circuit identification. According to the code, all circuits must be legibly identified as to their clear, evident, and specific purpose or use; and must include sufficient detail to be distinguished from all others.